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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,055	02/10/2004	Kun-Chuan Pan	14236 B	2118
23595	7590	08/08/2006	EXAMINER	
NIKOLAI & MERSEREAU, P.A. 900 SECOND AVENUE SOUTH SUITE 820 MINNEAPOLIS, MN 55402			PIERRE, JESSICA M	
			ART UNIT	PAPER NUMBER
			3764	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/776,055

Applicant(s)

PAN, KUN-CHUAN

Examiner

Pierre Jessica

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/10/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 250A on page 1 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

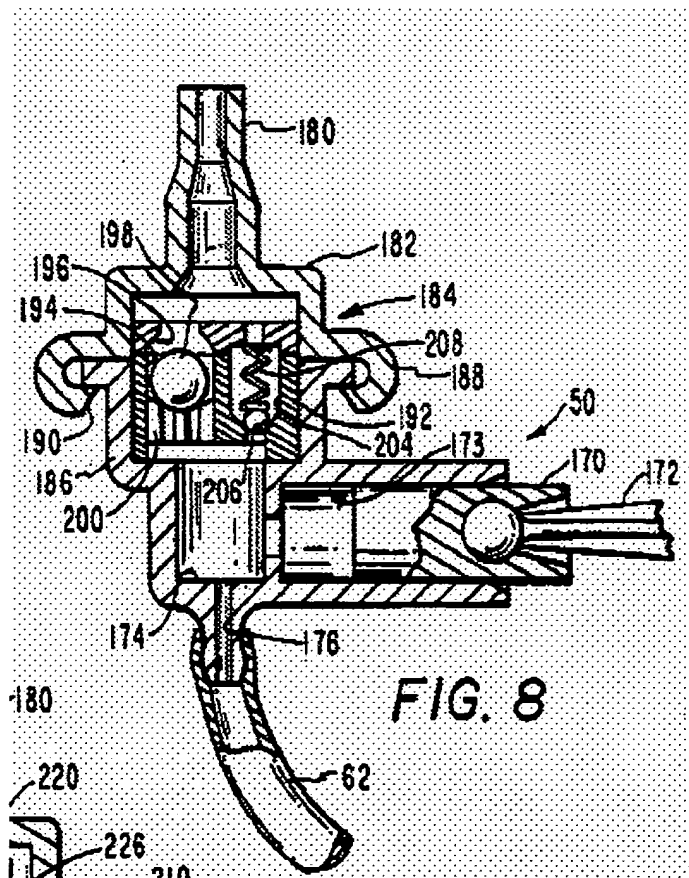
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regards as the invention. In claim 10, the term "vertical" is unspecific and could refer to any type of orientation of the piston chamber relative to the second chamber.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Claim 1-7, 9-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over BAUM ET AL (U.S. Pat. 4,989,590).

Regarding claim 1, BAUM ET AL teaches an irrigation device comprising a main body with an inside having a first chamber (near 180 in Figure 8), a second chamber (near 174), and a piston chamber (173) communicating with the second chamber. BAUM ET AL also teaches a cover (186) mounted on a first end of the main body that has an inside formed with a first passage communicating with the first chamber and a second passage (176) that communicates with the second chamber (174) of the main body, with the cover (186) having a periphery formed with a circulation channel (204) that communicates with the first and second passages. BAUM ET AL further teaches a piston (170) mounted in the piston chamber of the main body and a pressure release valve (206, 208) mounted in the circulation channel of the cover to form a circulation effect between the cover and the main body, releasing a hydraulic pressure in the cover. BAUM ET AL may not teach a main body of the device that has a periphery formed with an inlet channel that communicates with the first and second chambers of the main body. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the main body by integrating the insert (192) in Figure 8 with the adjacent area to create a periphery in order to expand communication between different parts of the main body to improve water flow efficiency.

Regarding 2, BAUM ET AL teaches the water flow circulation device in accordance with claim 1, wherein the circulation channel of the cover is formed with a

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stepped catch portion (near 206) between the first passage and second passage.

BAUM ET AL also teaches an anti-reverse member (206) mounted on the catch portion of the circulation channel.

With regard to claims 3 and 4, BAUM ET AL teaches a water flow circulation flow device in accordance with claim 2, wherein the pressure release valve has a stop in the top portion of the circulation channel (204) of the cover and an elastic member (208) mounted in the circulation channel of the cover urged between the stop and the anti-reverse member.

Regarding claim 5, BAUM ET AL teaches a plug (194, 196) mounted on a second end of the main body and having an inside formed with a flow channel (194, 196) communicating with the second chamber and the inlet channel of the main body.

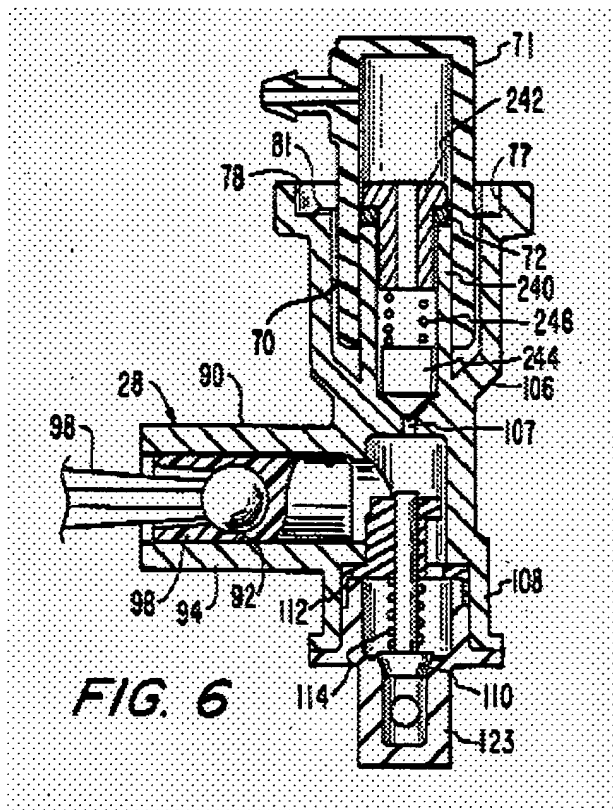
Regarding claim 6, BAUM ET AL does not teach a plug with a substantially L-shaped flow channel. Nonetheless, there appears to be no unobviousness to the shape of the channel. Such details are not critical and are well within the realm of the artisan of ordinary skill to shape the device dependent on practical considerations of intended use.

With regard to claim 7, BAUM ET AL does teach an inlet valve (198) mounted between the flow channel of the plug and the second chamber of the main body.

Regarding claim 9, BAUM ET AL teaches water flow circulation device wherein a piston (170) is connected to a piston lever that is driven through a converter.

With regard to claim 10, BAUM ET AL teaches a piston chamber (173) that is at 90 degrees to the second chamber (174). The piston chamber is vertical to the second chamber when the device is oriented thusly during use.

Claims 8, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over BAUM ET AL in view of HICKMAN (U.S. Pat. 4,824,368).



Regarding claims 8, 12, and 14, BAUM ET AL teaches a water flow device in accordance with claim 1 having an inlet valve (198) mounted between the inlet channel and the second chamber of the main body. However, BAUM ET AL does not teach a water flow circulation device having an outlet valve mounted between the second chamber of the main body and the second passage of the cover. However, HICKMAN teaches an outlet valve (244 in Figure 6) between the second chamber and the second

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passage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device by BAUM ET AL by placing the outlet valve between the main body's second chamber (174) and the second passage (176) of the cover as taught by HICKMAN to properly prime the outlet pressure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Pierre whose telephone number is (571) 272-8920. The examiner can normally be reached on M-F, 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMP

  
**Danton D. DeMille**  
**Primary Examiner**